**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

UNIVERSITY OF SOUTH FLORIDA
RESEARCH FOUNDATION, INC.,

          Plaintiff,

                              Case No. 3:18-CV-0250-K

vs.

BRIT SYSTEMS, INC.,

          Defendant.

_____/

JOINT CLAIM CONSTRUCTION AND PRE-HEARING STATEMENT

This document comprises the Joint Claim Constructions and Pre-Hearing Statement pursuant to Rule 4-3 of the Amended Miscellaneous Order No. 62 and the Court's Scheduling Order (Dkt. No. 101).

I.   Claim Terms Not In Dispute

The parties have not reached an agreement on the construction of any of the disputed claim terms.

II.   Proposed Constructions

A.   Disputed Claim Terms That Are Not Subject to 35 U.S.C. §112(6)

Appendix A sets forth the eleven (11) claim terms or phrases of the patent-in-suit (U.S. No. 6,650,937) that are in dispute between the parties, with the parties positions indicated. In addition, this exhibit sets forth all references from the specification or prosecution history that support each party's construction, and identifies any extrinsic evidence known to each party on which each party intends to rely, either to support its proposed construction of the claim term or to oppose the other party's proposed construction of the claim term.

B.   Disputed Claim Terms That Are Subject to 35 U.S.C. §112(6)

Appendix B sets forth the ten (10) claim terms or phrases of the '937 Patent that Defendant contends (and Plaintiff disputes) are subject to 35 U.S.C. §112(6), with the parties positions indicated.

III.   Claim Construction Hearing Length

Plaintiff requests an evidentiary hearing as well as oral argument and believes that the hearing can be conducted in one day.

Defendant does not believe that an evidentiary hearing or oral argument is necessary. To the extent that the Court permits oral argument and/or an evidentiary hearing, Defendant believes that three hours would be sufficient, with each side getting ninety minutes.

IV.   Witnesses, Including Experts, for the Claim Construction Hearing

If there is an evidentiary hearing, Plaintiff will call Dr. Ehsan Samei as a POSA and an expert at the claim construction hearing and will testify as a fact and expert witness. He is a Professor at Duke University and Head of Radiology/Medical Physics at the Duke Medical School. He will present testimony on the technology underlying the patent-in-suit and the meaning of the disputed terms to those skilled in the art. He is expected to testify that all of the disputed terms at issue have either common and ordinary meanings to persons of ordinary skill in the art ("POSAs"), or have clear support and meanings as understood by POSAs based on the specification and contents of the patent-in-suit.

Plaintiff will also call Mr. Joe McAlexander as both a fact witness and expert at the claim construction hearing to present testimony concerning the disputed terms and in particular those disputed relative to 35.U.S.C. §112(6). He is both a POSA and an expert in the technologies related to the patent-in-suit. He will testify that none of the disputed terms are indefinite to persons skilled in the art, and that some of them are not subject to §112(6) in the first place. He also will testify that the disputed means-plus-function terms are all supported by structures, materials or

acts set forth in the specification of the '937 patent based on the understanding of persons skilled in the art.

To date, Plaintiff has not disclosed its expert testimony to Defendant other than at the very high level set forth above. To the extent that the Court conducts a hearing, Defendant does not believe that live expert testimony is necessary or appropriate for that hearing. Defendant reserves the right to identify and present rebuttal expert testimony to the extent that Plaintiff is permitted to present live expert testimony at any claim construction hearing. To the extent that the Court decides that a hearing is warranted and that Plaintiff's experts should be permitted to testify at any such hearing, Defendant will also cross examine those experts.

VI.   Other Issues For PreHearing Conference

The parties agree they do not have any other issues at this time that need to be taken up at a pre-hearing conference prior to the Claim Construction Hearing.

Dated: July 16, 2018   Respectfully Submitted,

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APPENDIX A

No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
1	1, 2, 3	system for providing an interface/system for interfacing	Plain and ordinary meaning: a computer system	System that facilitates interaction, communication or exchange of information between different components	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander Abstract 3: 12-14 3: 28-50 3: 61 to 4: 8 4: 34-35	The New IEEE Standard Dictionary of Electrical and Electronics Terms, 5th ed. (1993) at 666-667 Webster's Ninth New Collegiate Dictionary (1984) at 631 U.S. Patent No. 6,630,937 ("937 Patent") at Abstract, 1:26-30, 1:62-2:8, 2:45-56, 3:12-17, 4:48-52, 4:60-62, 6:55-59, 7:40-51 U.S. Patent App. No. 10/081,135, Office Action Response Received Feb. 11, 2003 ("Response"), USF-0000159-172 at USF-0000165

No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
2	1, 2, 17	digitized mammogram/digitized mammography image	Common and ordinary meaning, digital image presentations of a human breast	Image or images of a patient's breast or breasts that have been produced by digitizing film or films of the breast image(s)	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander 1: 26-30 1: 33 1: 38 TITLE 2: 13-30 2: 51-56 3: 22-26 FIGS 4-13	Am. Heritage College Dictionary 4th ed. (2007) at 396 The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (2000) at 308 McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 607 Webster's New World Dictionary of Computer Terms, 7th ed. (1999) at 156 Wiley Electrical and Electronics Engineering Dictionary (2004) at 193 Am. Heritage College Dictionary 4th ed. (2007) at 838

No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
						937 Patent at 1:26-30, 2:13-20, 2:51-56, 4:9-26, 4:36-46 Response at USF-0000165
3	1, 2, 3, 13, 14, 17	greyscale values/grayscale values	Common and ordinary meaning: digital image luminance values corresponding to shades of grey from black to white	Numerical values representing a range of grays between white and black	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander 2: 17-20 FIG 3, Step 308 FIGS 4-8 5: 39-51	The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (2000) at 488 McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 926 Webster's New World Dictionary of Computer Terms, 7th ed. (1999) at 232 Wiley Electrical and Electronics Engineering Dictionary (2004) at 321 937 Patent at FIG. 3, FIG. 5, 2:22-27, 4:9-

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No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
						26, 4:36-46, 5:39-51, 5:54-64 \n\n Response at USF-000165
4	1, 2	optical densities	Common and ordinary meaning: the degree of transparency of an analog image displayed on a viewbox (aka a "light box")	Numerical values representing the degree of blackness, or inability of light to pass through, a film image	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander \n\n 1: 65-67 \n\n 4: 9-26 \n\n 4: 36-46 \n\n 4: 48-50	McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 1482 \n\n Wiley Electrical and Electronics Engineering Dictionary (2004) at 534 \n\n 937 Patent at 4:9-26, 4:36-46
5	1, 3,17	plurality of varying-resolution forms, each form having [different/a different set of] greyscale values	Multiple versions of the same image generated and displayed concurrently on different windows of a display monitor or monitors, each version having a different set of greyscale values and different resolution formats	Indefinite \n\n If the Court elects to construe this term: \n\n Multiple versions of the same image generated and displayed concurrently on different windows of a display screen, each image	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander \n\n 2: 13-30 \n\n 2: 51-56 \n\n FIGS 4-13 \n\n FIG 3, Step 308 \n\n 5: 38-51	There is no evidence supporting a clear and unambiguous construction of this term. In support of its position, BRIT cites to: \n\n Am. Heritage College Dictionary 4th ed. (2007) at 1517

No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
				version having a different range of grays between white and black represented by different numerical values		The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (2000) at 488

McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 926

Webster's New World Dictionary of Computer Terms, 7th ed. (1999) at 232

Wiley Electrical and Electronics Engineering Dictionary (2004) at 321

937 Patent at 2:22-30, 5:7-28, 5:39-64

Response at USF-0000165 |
| 6 | 1, 2 | predetermined illumination state | Plain and ordinary meaning: the greyscale values of a medical image established | Indefinite

If the Court elects to | Declarations and Testimony of Dr. Ehsan Samei and | There is no evidence supporting a clear and unambiguous |

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No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
			in advance for a window on a monitor	construe this term: A range of grays between white and black established in advance for a version of an image and represented by different numerical values	Joe McAlexander 2: 18-30 4: 9-26 5: 1-19 FIG. 3, Steps 304-206	construction of this term. In support of its position, BRIT cites to: Am. Heritage College Dictionary 4th ed. (2007) at 1097 937 Patent at 2:51-56, 4:9-26, 5:7-28, 5:39-64 Response at USF-0000165
7	1, 2	control the illumination state	Plain and ordinary meaning: the ability of a user to adjust the luminance of a displayed image on a monitor	Indefinite If the Court elects to construe this term: Manually and dynamically adjust the numerical values for a range of grays between white and black in an image version	Declarations and Testimny of Dr. Ehsan Samei and Joe McAlexander 2: 16-30 2: 51-56 5: 39-50 FIGS 4-5	There is no evidence supporting a clear and unambiguous construction of this term. In support of its position, BRIT cites to: 937 Patent at 2:51-56, 4:9-26, 5:7-28, 5:39-64 Response at USF-0000165

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No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
8	2	to display a mammogram image in a different form in each window with grayscale values that, along with the illumination characteristics of said monitor, appears to a user as a mammogram in each window under a predetermined illumination state	Capability to concurrently display on different windows of a display monitor (of specific characteristics of its own) different image versions of a single mammogram image, each image version having different greyscale values as dictated by the predetermined illumination state and the different displayed resolution formats	Indefinite

If the Court elects to construe this term:

Display concurrently on different windows of a display screen different image versions of a single mammogram image, each image version having a range of grays between white and black automatically assigned in advance to the image version and represented by different numerical values | Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander

2: 14-30

2: 51-56

5: 39-54

FIGS 4-13 | There is no evidence supporting a clear and unambiguous construction of this term. In support of its position, BRIT cites to:

Am. Heritage College Dictionary 4th ed. (2007) at 1097

The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (2000) at 488

McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 926

Webster's New World Dictionary of Computer Terms, 7th ed. (1999) at 232 |

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No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
						Wiley Electrical and Electronics Engineering Dictionary (2004) at 321 937 Patent at FIG. 3, 2:22-30, 2:51-56, 4:9-26, 5:7-28, 5:39-64 Response at USF-0000165
9	3	digitized medical image	Plain and ordinary meaning: an image of a portion of a human body in a digital format	Image of a patient's breast that has been produced by digitizing film of the breast image	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander 1: 26-30 2: 17-20 1: 33, 38 TITLE 2: 13-30 2: 51-56 FIGS 4-13 3: 22-26	Am. Heritage College Dictionary 4th ed. (2007) at 396 The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (2000) at 308 McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 607

No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
						Webster's New World Dictionary of Computer Terms, 7th ed. (1999) at 156 Wiley Electrical and Electronics Engineering Dictionary (2004) at 193 Am. Heritage College Dictionary 4th ed. (2007) at 838 937 Patent at Title, Abstract, FIG. 4-13, 1:26-30, 1:33-59, 2:51-56, 4:9-26, 4:36-46, 4:60-5:28, 5:65-6:41, 6:46-53, 7:39-51 Response at USF-0000165
10	17	System for analyzing	Plain and ordinary meaning: a computer system that provides the capability to analyze digital	System that facilitates a study or examination	Declarations and Testimony of Dr. Ehsan Samei and	Webster's Ninth New Collegiate Dictionary (1984) at 83

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No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
			mammogram images		Joe McAlexander 4: 55-59 4: 62-63 5: 14-17 5: 21-27 5: 39-51 6: 55-57	937 Patent at Abstract, 1:26-30, 1:62-2:8, 2:45-56, 3:12-17, 4:48-52, 4:60-62, 6:55-59, 7:40-51 Response at USF-0000165
11	1, 2	the digitized mammogram data having greyscale values corresponding to optical densities of the film mammogram image	Regardless of how the digital mammogram image is formed, i.e. from either direct digital or an x-ray film, the greyscale values of the image are substantially the same	the digitized images of the patient's breast having greyscale values that correspond to optical densities of the film images of the patient's breast	Declarations and Testimony of Dr. Ehsan Samei and Joe McAlexander 1: 65-67 4: 48-50 4: 9-26 4: 36-46 5: 19-23	Am. Heritage College Dictionary 4th ed. (2007) at 396 The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (2000) at 308, 488 McGraw-Hill Dictionary of Scientific and Technical Terms, 6th ed. (2003) at 607, 926, 1482 Webster's New World Dictionary of Computer Terms, 7th ed.

No.	Claims	Claim Term or Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Plaintiff's Extrinsic and Intrinsic Evidence	Defendant's Extrinsic and Intrinsic Evidence
						(1999) at 156, 232
						Wiley Electrical and Electronics Engineering Dictionary (2004) at 193, 321, 534
						Am. Heritage College Dictionary 4th ed. (2007) at 838
						937 Patent at FIG. 3, FIG. 5, 1:26-30, 2:13-20, 2:22-27, 2:51-56, 4:9-26, 4:36-46, 5:7-28, 5:39-51, 5:54-64
						Response at USF-0000165

APPENDIX B

I. TERMS IN DISPUTE BY BOTH PARTIES[1]

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
1	1	means for transforming the digitized mammogram data into a plurality of varying-resolution forms, each form having different greyscale values	**Subject to 35 USC §112 ¶6** (Not indefinite) **Function**: transforming the digitized mammogram data into a plurality of varying-resolution forms, each form having different greyscale values **Structure, Materials, or Acts**: A workstation processor 10, Figs. 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor 10, when executing the instructions, performing the processing algorithm of Figure 3, for example steps 304 – 306, and equivalents thereof, thereby changing the pixel sizes of binary information to form a plurality of varying forms each with	**Function:** transforming the digitized mammogram data into a plurality of varying-resolution forms, each form having different greyscale values **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

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[1] Proffered by at least one party as Subject to 35 USC §112 ¶6.

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		different greyscale values. ***Support*** UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Image manipulation software routines included in the XIL Imaging Library, 4: 28-32; Fig. 3, Steps 304-306 (processing algorithm); Fig. 4, *e.g.*, windows 41-44; 2:25-26; 3:38; 4:27-35, 40-46, 64 – 5:25; 5: 32-34, 39-51; 6:60-61; 7:3-8.	

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			Extrinsic Evidence Declaration of Expert Joe McAlexander	
2	1	means for communicating with a monitor to display the plurality of forms, each form within a different window on the monitor, and each form having a predetermined illumination state corresponding to the greyscale values thereof	**Subject to 35 USC §112 ¶6** (Not indefinite) **Function**: communicating with a monitor to display the plurality of forms, each form within a different window on the monitor, and each form having a predetermined illumination state corresponding to the greyscale values thereof **Structure, Materials, or Acts**: A workstation processor 10, Figures 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor 10, when executing the instructions, performing the processing	**Function:** communicating with a monitor to display the plurality of forms, each form within a different window on the monitor, and each form having a predetermined illumination state corresponding to the greyscale values thereof **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		algorithm of Figure 3, for example, step 308, thereby causing the display of binary information having different illumination states in different monitor windows. ***Support*** UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Image manipulation software routines included in the XIL Imaging Library, 4: 28-32; Figure 3, steps 307 and 308 disclose the display of different forms in different windows; 2: 27-30. Extrinsic Evidence Declaration of Expert Joe McAlexander	

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
3	1	means for receiving from the user communication means a control instruction for changing an illumination state in a displayed form and for implementing the control instruction upon the displayed form, thereby permitting the user to control the illumination state of each displayed form	**Subject to 35 USC §112 ¶6** (Not Indefinite) **Function**: receiving from the user communication means (*e.g.*, user I/O device) a control instruction for changing an illumination state in a displayed form and for implementing the control instruction upon the displayed form, thereby permitting the user to control the illumination state of each displayed form **Structure, Materials, or Acts**: A workstation processor 10, Figures 1 and 2, and its equivalents, receiving a control instruction by selection of one or more of buttons 402, and 404 – 406, and equivalents thereof, the workstation processor 10 executing the control instruction to implement step 308 of the processing algorithm of Figure 3, or its equivalents, to make greyscale adjustments to control	**Function:** receiving from the user communication means a control instruction for changing an illumination state in a displayed form and for implementing the control instruction upon the displayed form, thereby permitting the user to control the illumination state of each displayed form **Corresponding structure:** None disclosed.

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			the illumination state of each displayed form. ***Support*** UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; 5:14-18: Processing algorithm of Figure 3, block 305, changing the grayscale range to match the dynamic range of the monitors (*e.g.*, 65,256 greyscale levels to 256 greyscale levels – 16 bits to 8 bits); 5:39–51: grayscale adjustments (Buttons 402, 404-406: Fig. 4); Processing algorithm of Figure 3, steps 305 explicitly states the original images are converted from 16 bits to 8 bits "for monitor" (i.e., for display to a user)); Buttons - Various "Buttons" are displayed	

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		in the GUI (graphical user interface) and can be used for image manipulation including grayscale (dynamic) resolution. The Buttons may be selected by a user-operated device, such as the mouse 18 in Figure 2 (4:66 – 5:2); Buttons 404-406 in Figure 4; other Buttons are shown Figures 5 and 6. In Figure 5, preview button 401 displays preview images (Figure 13 shows preview images). In Figure 6, operation of Button 403 provides for display of a full image (at a low resolution) in window 61. Button 402 in Figure 5; and buttons 402, 404, 405, 406 at 5:39-51; Image manipulation software routines included in the XIL Imaging Library, 4:28-32; The user sends signals to the processor by selecting items on the monitor with a mouse or the like, the items including Button 402 (as best shown in Figure 5) and adjustment	

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			Buttons 404-406 (as shown in Figure 4); 4:66-5.2;5:29-32; Furthermore, underlying hardware and software means for receiving control instructions from the user communication means (*e.g.*, keyboard and mouse) are known included components of the Sun Microsystems UltraSPARC 2200 system running the Solaris 2.5.1 operating system provided in the disclosure of the '937 Patent; 3:45-59, including Table 1. Extrinsic Evidence Declaration of Expert Joe McAlexander	
4	2	said processor . . . being responsive to a signal from said input device to transfer digitized image data from said electronic storage medium to said monitor in a way that causes the	**Not Subject to § 112, ¶ 6** A processor is a well-known term of art and the term is not indefinite. It is a device or mechanism	**Function:** transfer digitized image data from said electronic storage medium to said monitor in a way that causes the monitor to produce a display having a plurality of

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
	monitor to produce a display having a plurality of windows and to display a mammogram image in a different form in each window with grayscale values that, along with the illumination characteristics of said monitor, appears to a user as a mammogram in each window under a predetermined illumination state	(hardware and/or software (the software comprising instructions stored on a computer-readable storage medium)) that receives and executes instructions, such as the instructions of the processing algorithm of Figure 3 of the '937 Patent. *Support* Figures 1 and 2 (workstation processor 10) as described at 3:45-60, including Table 1; The computer including the computer readable storage medium is disclosed to implement the present invention is the UltraSPARC 2200, a dual processor 200-MHZ system (Figures 1, 10), with 512 MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Image manipulation software routines included in the XIL Imaging Library, 4: 28-32;	windows and to display a mammogram image in a different form in each window with grayscale values that, along with the illumination characteristics of said monitor, appears to a user as a mammogram in each window under a predetermined illumination state **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		Extrinsic Evidence IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Ed (12/10/1996) Declaration of Expert Joe McAlexander If determined to be **Subject to § 112, ¶ 6:** (Not indefinite) **Function:** transfer digitized image data from said electronic storage medium to said monitor in a way that causes the monitor to produce a display having a plurality of windows and to display a mammogram image in a different form in each window with grayscale values that, along with the illumination characteristics of said monitor, appears to a user as a mammogram in each window under a predetermined illumination state	

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		Structure, Materials, or Acts: A workstation processor 10, Figures 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor 10, when executing the instructions, performing the steps of the processing algorithm of Figure 3. ***Support*** UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Image manipulation software routines included in the XIL Imaging Library, 4: 28-32; image storage device, *e.g.*, device 12 of Figs. 1 & 2;	

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		Fig. 3, steps 302 and 304 (preview images) and 304 (original images); 2:17-20, 24-27; 3:65 – 4:8, high capacity database storage; 4:4, SPARC storage Library 12; . Fig. 3, steps 304-306 (processing algorithm); Fig. 4, *e.g.*, windows 41-44; 2:25-26; 4:27-35, 40-46, 64 – 5:23; 5:21-25, 32-34, 39-51 6:60-61; 7:3-8; The processing algorithm of Figure 3, steps 307 and 308, disclose the display of different forms in different windows;	

'937 Patent Claim(s)		Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			2:20-27; 5:21–25 describe the spatial (pixel size) resolution component. The pixel sizes are changed by sub-sampling. Images with different spatial resolutions are displayed in the four windows 41 – 44 of Figure 4 (41 and 42 are low resolution images of the entire view; 43 and 44 are partial views at high resolution). Extrinsic Evidence IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Ed (12/10/1996) Declaration of Expert Joe McAlexander	
5	2	said processor being adapted to receive further input from said input device related to the mammogram image in a selected window,	**Not subject to § 112, ¶ 6** A processor is a well-known term of art and the term is not indefinite. It is a device	**Function:** receive further input from said input device related to the mammogram image in a selected window, said further input from said input device

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
	said further input from said input device including input that selectively controls the grayscale values of the mammogram image in the selected window, thereby enabling an operator handling said input device to selectively control the illumination state with which the mammogram image in the selected window is displayed to the operator	or mechanism (hardware and/or software (stored on a computer-readable storage medium)) that receives and executes instructions, such as the instructions of the processing algorithm of Figure 3 of the '937 Patent, so defined with data to produce results. ***Support*** Figures 1 and 2 (workstation processor 10) as described at 3:45-60, including Table 1; The computer including the computer readable storage medium is disclosed to implement the present invention is the UltraSPARC 2200, a dual processor 200-MHZ system (Figures 1, 10), with 512 MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Image manipulation software routines included in the XIL Imaging Library, 4: 28-32.	including input that selectively controls the grayscale values of the mammogram image in the selected window, thereby enabling an operator handling said input device to selectively control the illumination state with which the mammogram image in the selected window is displayed to the operator **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

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'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		If determined to be **subject to § 112, ¶ 6:** (Not indefinite) **Function:** receive further input from said input device related to the mammogram image in a selected window, said further input from said input device including input that selectively controls the grayscale values of the mammogram image in the selected window, thereby enabling an operator handling said input device to selectively control the illumination state with which the mammogram image in the selected window is displayed to the operator **Structure, Materials, or Acts**: A workstation processor 10, Figs. 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor	

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'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		10, when executing the instructions, performing the processing algorithm of Figure 3 to receive user instructions from a user input device and make greyscale adjustments (to control the illumination state of each displayed form). *__Support__* UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system. 3:45-48 5:17 - block 305 of the processing algorithm of Figure 3, changing the grayscale range to match the dynamic range of the monitors (65,256 greyscale levels to 256 greyscale levels – 16 bits to 8 bits); 5:39–51 - grayscale adjustments; The processing algorithm of Figure 3, block 305 explicitly states the original images are converted	

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		from 16 bits to 8 bits "for the monitor"); Buttons - Various "Buttons" are displayed in the GUI and can be used for image manipulation including grayscale (dynamic) resolution. The Buttons may be selected by a user-operated device, such as the mouse 18 in Figure 2 (4:66 – 5:2); Buttons 404-406 in Figure 4; other Buttons are shown Figures 5 and 6. In Figure 5, preview button 401 displays preview images (Figure 13 shows preview images). In Figure 6, operation of Button 403 provides for display of a full image (at a low resolution) in window 61. Button 402 in Figure 5; and buttons 402, 404, 405, 406 at 5:39-51.; Image manipulation software routines included in the XIL Imaging Library, 4: 28-32; The user sends signals to the processor by selecting items on the monitor with a mouse or	

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		the like, the items including Button 402 (as best shown in Figure 5) and adjustment Buttons 404-406 (as shown in Figure 4); Furthermore, underlying hardware and software means for receiving control instructions from the user communication means (*i.e*., keyboard and mouse), are known included components of the Sun Microsystems UltraSPARC 2200 system running the Solaris 2.5.1 operating system provided in the disclosure of the, 3:45-48, '937 Patent. 3:45-59, including Table 1. <u>Extrinsic Evidence</u> IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Ed (12/10/1996) Declaration of Expert Joe McAlexander	

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
6	3	means for establishing electronic communications with a processor for receiving a stored digitized medical image comprising data representative of a plurality of greyscale values.	**<u>Subject to 35 USC §112 ¶6</u>** (Not Indefinite) **Function**: Establishing electronic communications with a processor for receiving a stored digitized medical image comprising data representative of a plurality of greyscale values **Structure, Materials, or Acts**: user input device(s) for selecting and recovering stored binary information of a human breast or another portion of a human body (*e.g.*, mouse, keyboard) *<u>Support</u>* 2:17-19; 4:64 – 5:2, mouse; Figure 3, steps 301, 302, 304 – Menu selection, using, for example, a mouse;	**Function:** Establishing electronic communications with a processor for receiving a stored digitized medical image comprising data representative of a plurality of greyscale values **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			5:7–20, user interacts with the program. Extrinsic Evidence Declaration of Expert Joe McAlexander	
7	3, 17	means for receiving a signal from a user-operable device	**Subject to 35 USC §112 ¶6** (Not indefinite) **Function**: receiving a signal from a user-operable device **Structure, Materials, or Acts**: A workstation processor 10, Figures 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor 10, when executing the instructions performing the processing algorithm of Figure 3, thereby recognizing and acting on signals from user input/output devices, such as a mouse	**Function:** receiving a signal from a user operable device **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

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		Support UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; "I/O" Block in Figure 1; a mouse and keyboard is shown in Figure 2 that provides user input; Processing algorithm of Figure 3, 4:28-33; Buttons 404-406 as shown in Figure 4, which change the greyscale and gamma values when selected by the user input device; 402 in Figure 5 collectively refers to Buttons 404-406 which change the greyscale and gamma values; 4:64 – 5:2; 5:29-32 and 39-44. Extrinsic Evidence Declaration of Expert Joe McAlexander	

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	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
8	3, 17	means controllable by a signal from the user-operable device for transforming the image into a plurality of varying-resolution forms, each form having a different set of greyscale values	**Subject to 35 USC §112 ¶6** (Not indefinite) **Function**: transforming the image into a plurality of varying-resolution forms **Structure, Materials, or Acts**: A workstation processor 10, Figures 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor 10, when executing the instructions, performing the processing algorithm of Figure 3, thereby changing the pixel sizes of binary information to form a plurality of varying forms each with different greyscale based on signals from user input devices *Support* UltraSPARC 2200, a dual-processor 200-	**Function:** transforming the image into a plurality of varying-resolution forms **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Fig. 3, Steps 304-306 (processing algorithm); Fig. 4, *e.g.*, windows 41-44; 2:20-27; 4:27-35, 40-46, 64 – 5:23; 5:21-25, 32-34, 39-51, 60-64; 6:60-61; 7:1-8. Extrinsic Evidence Declaration of Expert Joe McAlexander	
9	3	means for displaying the forms on the display means, each form displayed within a different sector of the display means	**Subject to 35 USC §112 ¶6** (Not indefinite) **Function**:	**Function:** displaying the forms on the display means, each form displayed within a different sector of the display means

'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
		displaying the forms on the display means (*e.g.*, monitors), each form in a different sector (window) **Structure, Materials, or Acts**: A workstation processor 10, Figures 1 and 2, and equivalents thereof, executing one or more instructions stored on a computer-readable storage medium of the workstation, the workstation processor 10, when executing the instructions, performing the processing algorithm of Figure 3, step 308, causing the display of binary information in different spatial resolutions in different monitor windows *Support* UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48; Processing algorithm of Figure 3;	**Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

	'937 Patent Claim(s)	Disputed Term	USFRF's Proposed Construction	BRIT's Proposed Construction
			Steps 301, 308, 310, 313 (processing algorithm) in Figure 3; 2:27-30; 4:18-21 and 28-35; and Buttons in Figures 4-8 5:2-28. Extrinsic Evidence Declaration of Expert Joe McAlexander	
10	17	means for displaying a first form on the first monitor and a second form on the second monitor	**Subject to 35 USC §112 ¶6** (Not indefinite) **Function**: displaying a first form on the first monitor and a second form on the second monitor **Structure, Materials, or Acts**: A workstation processor 10, Figures 1 and 2, and equivalents thereof, executing one or more	**Function:** displaying a first form on the first monitor and a second form on the second monitor **Corresponding structure:** None disclosed. Because there is no algorithm disclosed to perform the recited function, this claim term is indefinite.

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		instructions stored on a computer-readable storage medium of the workstation , the workstation processor 10, when executing instructions, performing the processing algorithm of Figure 3, and hardware (display driver) operative to display a first form on a first monitor and a second from on a second monitor ***Support*** <u>UltraSPARC 2200, a dual-processor 200-MHZ system (FIGS. 1, 10), with 512-MB RAM running under the Solaris 2.5.1 operating system, 3:45-48;</u> Processing algorithm of Figure 3, including steps 303 and 308; Monitors 14 and 16; Figures 1 and 2; 4:18-35 and 60-62; and 5:2-13. <u>Extrinsic Evidence</u>	

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		Declaration of Expert Joe McAlexander	